ble to be called to attend upon patients suffering under the disease or from its sequelæ.

To the treatise are appended four essays by its author, which appeared originally in the *Medical Times and Gazette*—namely, On the Treatment of Ulcers by Galvanism; On the Cure of Squinting by Prismatic Spectacles; An Account of a New Ophthalmoscope; and, On the Use of Chloroform Inhalations in the Palliative Treatment of Phthisis. D. F. C.

ART. XVI.—*Statistical Reports on the Health of the Navy (British) for the Years* 1837 *to* 1843, *including Seven Years.* Part II., East India Station. Presented to Parliament, June 1, 1853. Folio, 94 pp.

As might be inferred from the title, this publication presents a great mass of information which will be examined with interest by the medical inquirer, and more particularly by those of the profession attached to the military and naval services. The valuable tables presented show, among other things, the total number of cases of all diseases and injuries, specifying those sent to hospital, invalided and dead, during a series of seven years; the number of cases of principal diseases and maladies depending upon specific causes that occurred in the different ships; the total number of cases of all diseases and injuries for seven years, the number sent to hospital, invalided and dead, with the ratio of each per 1,000 of mean strength; the annual mean strength, with the annual number of cases of all diseases and injuries; the total number of cases of the principal diseases, the number invalided and dead, with the ratio of each per 1,000 attacked, for seven years.

One of the most interesting features of the report is the attempt made to reduce practical results from statistics by exhibiting the effects attributable to different modes of treatment pursued in different ships. The success was but partial, and the attempt was abandoned in consequence of several difficulties, among which was that of not finding two or more vessels, in which the men had for a sufficient length of time been placed under circumstances which were precisely similar with respect to the influences operating on their health, together with all the necessary information as to their exposure on shore or in boats, their habits of living, the condition of the decks, modes of ventilation, &c. It was, however, ascertained, "that the exhibition of any of the more popular remedies on the heroic plan was not attended with the most favourable results; for, though when so given they might appear to succeed in one case, there were others in which they failed. As in the fevers which prevail on the western coast of Africa, where a more rational mode of practice has been introduced, it was found that bloodletting did not lessen the intensity of morbid action, or relieve what has been called congestion; neither did calomel, even when 'pushed' to an extravagant extent, arrest the onward course of the malady, or prevent the recurrence of febrile paroxysms, even though ptyalism had been induced."

The following extracts present condensed statements of the nature and treatment of the febrile diseases to which the naval and military forces were subjected during their active service on the Chinese coast in the year 1843. The reporter remarks that—

"Like the preceding year, the details for the present furnish the most ample proof, were it required, of the unhealthy nature of the Chinese coast from the equator up to the thirty-third degree of north latitude; although beyond that, even up to the most northern limits of the Yellow Sea, there is no reason to suppose that it is more healthy. Everywhere a humid atmosphere overhangs a marshy soil, teeming with a profuse and vigorous vegetation, stimulated to exuberant growth by strong and offensive manures—conditions which, within the tropics, generally, if not universally, prove destructive to the health of men coming from regions north of the fiftieth parallel of latitude. The shores and alluvial banks of tidal rivers, on the coast of China, differ in some respects from similar localities on the coast of Africa, inasmuch as the former are extensively cultivated, and yield their annual produce in obedience to the will of man; the latter are still in their natural state, bearing the same wild, indigenous vegetation that has covered them for ages, or, it may be, from times coeval with the creation of the human race. In both, remitting and intermitting fevers prevail; but as regards those which occur in China, there is this difference to be observed, that they are almost invariably accompanied by diarrhœal and dysenteric attacks; while in Africa, although diarrhœal affections sometimes precede an eruption of fever, they seldom or never assume a dysenteric character, and they generally cease when the fever becomes general, or acquires epidemic force. How far cultivation, and the difference in the vegetable produce covering the soil, may be influential in the causation of disease in these two regions, is a question which cannot be satisfactorily answered.

"Forty-three vessels were employed for a longer or shorter period on both divisions of the station during 1843, with a mean force for the year of about 6,450 men.

"With respect to febrile diseases, there occurred, of all kinds, 3,008 cases, being in the ratio of 466.3 to the 1,000 of mean force—a considerable reduction as compared with the preceding year, yet high as regards the average of a series of years, previous to the commencement of the war. There were forty deaths, which gives a ratio of 6.1 to the same amount of force, showing that these maladies were not only of less frequent occurrence, but that they were less fatal. In the medical returns, these 3,008 cases have been placed under the heads of intermittent, remittent, continued, typhus, and ephemeral fever, distinctions which might lead to the inference that different kinds of fever had prevailed throughout the force—but such does not appear to have been the case. Originating from causes presumed to be identical on all parts of the station, unless the first or second paroxysm proved fatal, they naturally presented symptoms which, in the main, were common to them all: as what has been called the continued, generally ran into the remittent, and the remittent into the intermittent, although there were rare instances in which this order was reversed, the two latter apparently, from an increase of morbid action, having assumed or passed into the continued type. A large proportion of, or rather nearly all, the cases of intermittent were the sequelæ of fevers which had first appeared in the continued or remitting forms; still there were a few cases which seem to have been intermittent from the commencement, although it is probable they were connected with preceding attacks, which were not observed, or had been forgotten. The term typhus has been applied to twenty cases; it does not appear, however, that they presented the symptoms peculiarly characteristic of this form of fever, though symptoms usually denominated typhoid were noticed: twenty-seven cases of continued and remittent, that is, of primary attacks, and twelve of intermittent, terminated in death; the latter were all cases of confirmed ague, which had long resisted every kind of medical treatment.

"Making every allowance for different modes of treatment, the disease appears to have prevailed with more severity in some vessels than in others, those which were most exposed in unhealthy localities, or in which there existed defective hygienic arrangements, presenting the most intractable cases. In several vessels, in consequence of secondary attacks, the number of cases placed on record far exceeds the number of men borne on the books; the Childers and Dido are instances of this kind; but, in point of fatality, the crew of the Cornwallis were the greatest sufferers. In this vessel there were 313 cases of intermittent, and 132 of remittent, placed on the sick report during the year: by far the greater number of the first-named occurred amongst men who had suffered previously, more especially while serving in the Yang-tse-Kiang."

"With respect to the treatment of these maladies, the surgeon remarks, 'that bleeding in the cold stage of intermittent was had recourse to in many instances with marked and decided benefit, particularly if this initiatory step were followed by calomel purges and moderate doses of quinine.' Bleeding was also had recourse to in remitting fever, together with nearly all the usual auxiliaries, such as cold applications to the head, blisters, calomel purges, the preparations of antimony, and, when a remission took place, quinine. Under the exhibition of these remedies, the results were not very satisfactory, as eight cases of the former and ten of the latter terminated in death. In some instances, it was supposed the treatment changed the remitting fever into ague. It is further observed, that, 'as compared with the remittent fevers that occurred in the Yang-tse-Kiang during the preceding year, these were much more amenable to treatment; the remissions being more distinctly marked, quinine could be administered with greater advantage: of the former, there occurred 37 cases and 4 deaths; of the latter, 132 and 10 deaths; the mortality for the preceding year being nearly a third greater than for the present. But, on the other hand, the mortality from all kinds of fever for the present year exceeds that of the former in about the proportion of 4 to 2½ per cent. It may be fairly doubted whether any benefit was derived from the bloodletting; at all events, it could only have been of a temporary nature, as the mortality from fever and ague in this vessel far exceeded that in other vessels where the treatment was less 'active,' although the fevers were the same, and contracted in the same as well as in similar localities. In estimating the value of any remedy, such, for example, as venesection in the above instance, it seems difficult to conceive how its effects could be ascertained separately from those of several other remedies which were used at the same time.

"In the Agincourt, there occurred 14 cases of intermittent, 47 of remittent, and 52 of continued or synochal fever: one of each of the former was invalided, and two of the latter died. The most severe cases of remittent were contracted at Hong Kong by a party of marines who mounted guard over the same stores with the men from the Cornwallis; the earliest appeared on the 9th, and the last on the 30th of July. Every man of the guard who slept on shore was attacked; whereas there did not occur, at that period, a single case of a similar nature amongst the rest of the crew. Out of 75 men ordered on this special duty on the 25th of June, 47 were attacked with fever, and the remaining 28, who escaped, suffered severely either from diarrhœa or dysentery. The disease was not developed in any instance until after they had been fifteen days landed. The remedial measures employed in these cases were emetics at the outset, then a mercurial purge, and, subsequently, James's powder, saline medicines to keep the bowels open, and a dilute solution of acetate of ammonia, with nitrous ether as common drink. Bleeding was not employed in any instance; but it was thought necessary in many cases to 'push the mercury to ptyalism'—a mode of expression which means that it was not given with a sparing hand.

"It is remarkable that in the Cornwallis, in which—'when high arterial action and headache were present'—it was thought necessary to resort to active measures, such as bleeding, 'to reduce the disease to a manageable form,' the number of deaths from remitting and continued fever, namely, primary attacks, was not far from being four times greater than in the Agincourt, in which blood appears to have been only once abstracted by leeches. In making these comparisons, it is also at the same time to be borne in mind, that the crew of the latter vessel had not completed one year on the station, and had never ascended any of the great rivers; whereas the men of the former had been upwards of three years actively employed on all parts of the Chinese division of the station, and had suffered most severely both in the Canton and in the Yang-tse-Kiang rivers; it may, therefore, be readily imagined that they were not only less able to withstand the debilitating effects of fever, but less likely to be benefited by depletory measures, than were the crew of the newly arrived ship, amongst whom it was not considered to be necessary."

"In July and August, while the solar heat was great, parties of men from the Cambrian were occasionally exposed to its influence while watering the ship; they were also exposed to the cold night-air and to dews, in consequence of the watering-place being at a distance, which required them to be absent all night. While thus employed, they took cinchona bark, in spirits, as a prophylactic, apparently with good effect; for although they were employed floating the water-casks to and from the boat during the hottest part of the day, with the upper part of their bodies exposed to the full force of a mid-day sun, while the lower was immersed up to the middle in the sea, yet none of them contracted any serious illness. The surgeon, indeed, has remarked, that if it were not for liberty to go on shore, together with the intemperate use of spirituous liquors, and of solid animal food, such as 'ducks, eggs, hams, pork, and poultry,' the crew would have enjoyed an almost perfect immunity from every kind of sickness; and he has further stated, that 'if inebriation could be prevented, there would be little for a medical man to do on a foreign station, and the ships would be more effective than is generally the case.' 'I have never,' he adds, 'seen a more salubrious climate than the climate of this part of the coast of China; and I am perfectly satisfied that if alcohol were not in existence, there would not be many advocates for malaria' (as a cause of disease). There is a certain amount of truth in the preceding remarks as regards the influence of intoxicating liquors; but as to the supposed salubriousness of the coast of China, there are too many proofs to the contrary. And although intemperance was unquestionably, in numerous instances, the primary source of disease, still there is no reason to suppose that it was productive of a tithe of the various maladies which prevailed universally throughout the naval force employed on the Chinese waters. The immoderate use of the several kinds of food mentioned may have had some influence; still there does not appear to have been, in this vessel, any increase of those diseases that generally result from repletion or continued over-eating; and, as the crew of the Cambrian suffered but little compared with the terrible destruction of health and life caused by other diseases in vessels in which the men suffered from the want of nutritious animal food, it is to be regretted that these good things were not more equally distributed to the whole force, whether naval or military."

May we ask, where, on the shores of the Western Pacific, is to be found that terrible scourge of seaports on the Atlantic, the yellow fever. Has it to make its way to the Chinese ports, as it has recently done to those of the Southern Atlantic, on the Amazon, and La Plata?

Among the most formidable maladies with which the surgeons had to contend, were bowel complaints, dysentery, diarrhœa, cholera morbus, and, worst of all, Asiatic cholera.

The following passages will afford some interesting details relative to the characteristic and mooted points connected with the treatment of the latter disease:—

"In the Blonde, while lying at the same anchorage with the Belleisle and Cornwallis, near Ching-Kiang-foo, close to the position occupied by the 98th regiment, in which the disease raged with destructive force, only one case occurred. For this exemption the surgeon states it would be difficult to assign a cause; he, however, hazards the opinion, 'that it might depend upon the non-depletory plan adopted in the treatment of fevers, which, being of an asthenic form, bleeding was contra-indicated.' The physical powers of the men were thus, he supposed, better able to withstand the inroads of any disease occurring subsequently, while they were less susceptible to the variations of temperature. This vessel moved from Ching-Kiang-foo up the river to Nanking on the 6th of August, and remained there until the 1st of October; she then began to move down the river on the morning of the 2d, when five other cases occurred, one of which proved fatal. Four of these, being at the time under treatment for intermittent fever, were not entered on the sick list for cholera."

"Fourteen cases of cholera occurred in the North Star, while she lay at the entrance of the Woosung River. The first appeared on the 5th, and the last on the 25th of August. Eight of these the surgeon has designated as 'of a truly malignant character.' 'At the time the disease made its appearance, the ship's company had certainly arduous duties to perform, many of them being employed on boat service night and day; yet only two or three of the men attacked with the disease in its worst form had been employed on these services.' Bloodletting, he states, appeared to have more or less an excellent effect in all; by this means, reaction in nearly every instance was produced, and the external heat restored; the surface, in some cases, even at death, was preternaturally hot. In one of the worst cases, when the pulse began to get contracted and weak, thirty ounces of blood, at the rate of about ten at a time, were abstracted with the most marked effect; generally, however, the reaction was but temporary. Now, judging from the results, the advantages gained by the above mode of practice seem to have been of a very questionable nature. Of the effects of any remedial measure, we can only speak with certainty after long experience, by repeatedly contrasting its effects with those of other remedies; and likewise by contrasting the results obtained by the exhibition of one specific remedy, with the results observed in cases treated without the employment of any remedial means whatever. In the few cases of cholera that occurred in this vessel, nearly the same mode of treatment was adopted, the aim being in all to lessen what has been termed congestion; consequently there were no means of judging how far the measures were beneficial or detrimental. Out of fourteen cases, or rather, according to the surgeon's report, out of eight of a truly spasmodic character, six proved fatal—a rate of mortality, it is to be presumed, which effectually precludes the possibility of attributing any beneficial influence to the depletory plan of treatment. In five of the six fatal cases recorded, blood was taken from the arm to the extent of from ten to twenty-six ounces; but in no instance, judging from the symptoms detailed, does it appear to have afforded the slightest permanent relief; the symptoms did not alter, and if they had altered, it would have been difficult to ascertain to what the alteration was due, as hot brandy and water spiced was given both before and after the bleeding. In one of the cases, after twelve ounces of blood had been taken from the arm, an attempt was made eight hours afterwards to take away more; but 'no blood could be obtained, either from the veins of the arms or from the temporal artery;' the pulse was then imperceptible at the wrist, 'the respiration full and loud,' the features much contracted, 'the face and neck of a leaden hue; the body and lower extremities warm, but the neck and arms cold and clammy.' Two hours afterwards the patient expired.

"It is not necessary further to follow up the detail of these cases; sufficient has been stated to show that the bloodletting had none of the excellent effects attributed to it."

"On careful perusal of all the medical reports from the squadron, it appears that in every vessel employed in the Yang-tse-Kiang, from Woosung to Nanking, between the middle of July and the middle of October, cholera or choleraic diarrhœa broke out, while not a case of either form of the disease appeared in vessels employed on other parts of this division of the station, with the exception of those which arrived at Chusan from the Yang-tse-Kiang. On the Indian division of the station it appeared in vessels touching at Bombay, Calcutta, and Singapore, the disease being prevalent in each of those places at the time of their visit.

"How far medical treatment lessened the mortality from this disease, or whether it influenced it at all, is a question, if we are to judge by the medical reports, that will not be easily answered! for there were not two medical officers in the squadron that agreed as to the same remedial measures; while, as a general rule, each considered his own, even although every second or third case proved fatal, to have been attended with some good effect. Another reason which tends to invest this question with difficulty, is the various degrees of severity with which the disease appears in different communities in different places, and in similar communities in the same places. In several of the vessels in the Yang-tse-Kiang, in the Driver, Hazard, Harlequin and Jupiter, for instance, the disease could hardly be recognized separately, a few of its leading symptoms, such as spasm, and profuse watery evacuations, having been merely temporarily, so to speak, engrafted on the already existing cases of diarrhœa: while in other vessels, as in the Belleisle, Cornwallis, and North Star, it displayed all its worst characters.

"At the period now under consideration, bloodletting appears to have been much in vogue all over India; and however contrary to common sense it may now appear, still it would be difficult to prove that it was not in some instances attended with benefit, while there are others in which it evidently only hastened the fatal result, inevitable, perhaps, without it. The state which seems to have been most dreaded, and against which this most formidable remedy was employed, was congestion—the accumulation of dark blood in some part of the body, probably in the large veins of the thoracic and abdominal cavities, or in the vessels of the viscera themselves. How it was ascertained that the organs contained in these cavities were really in a congested state has not been mentioned; neither has the nature or the action of the primary cause effecting these accumulations or stagnations of the vital fluid been explained, nor as to how they gave rise to spasm, the flow of immense quantities of fluid from the intestinal canal, and, in the end, to death. The mere mechanical obstruction offered by these congestions did not interrupt respiration or the action of the heart; neither can we suppose they interfered with the secretion of bile or urine; and as none of the tissues of any of the organs, however much they may have been loaded with blood, were found after death to be disorganized, it is difficult to imagine why simple congestion should have been feared, and equally difficult to imagine how the abstraction of blood could be supposed to remove the primary cause effecting the obstruction of the circulation, or (unless by diminishing the quantity) relieve the overburdened organs of their surplus blood. The purpose for which blood was abstracted, appears to have been to excite reaction; but, if it really ever had this effect, it seems as if we might suppose that the increased force of the arterial current would likewise increase for a time the venous congestion, and thus the purposed remedy would add to the evil it was intended to remove."

The reliance to be placed in the observations made, and results exhibited in the report, may be estimated by the fact that the English squadron on the East India station, for at least ten years previous to 1840, seldom consisted of less than ten, or more than eighteen vessels, bearing a yearly average of from 1,500 to 2,000 men. During the war with China, the forces were increased to 7,000 and upwards. G. E.

ART. XVII.—*History of the Yellow Fever at New Orleans, La., in* 1853. By E. D. FENNER, M. D., one of the Physicians to the New Orleans Charity Hospital, &c. &c. New York: 1854. 8vo. 84 pp.

WHEN a disease breaks out in any locality, it would appear, at first sight, to be a very easy matter to settle the question as to its origin—whether from some cause existing in the locality itself, or a *materies morbi* introduced from without. And yet we find that, in reference to the occurrence of yellow fever in this, as well as in other countries, the question of its domestic origin or importation from abroad, is still a subject of much and often angry controversy. This, however, we apprehend, arises less from the intricacy and obscurity of the question itself, or from the want of sufficient data for its satisfactory solution, than from the one-sided view that has been taken of the circumstances connected with the several visitations of the disease. It is, unfortunately, too often the case that a few badly interpreted facts are seized upon, while others, of even greater significance, are either entirely overlooked, or, by a forced construction, are made to conform to the conclusions deduced from the incomplete or erroneous data that have been first adopted.

A vessel arrives at one of the wharves of a city from some foreign port—from one, perchance, within the yellow fever zone, and within a few days one or more of her crew are attacked with the disease, while shortly afterwards numerous cases occur in individuals residing in the immediate vicinity of the spot at which the vessel lies, and perhaps in others more or less remote. With many, such facts afford unquestionable evidence of the importation of yellow fever, which conclusion is almost invariably that adopted by the community at large, who never investigate closely or reason accurately, especially on questions relating to the etiology of disease, and whose mind it is always difficult to disabuse of any error it may imbibe.